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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/723,442	11/26/2003	Ernie Lin	12203-007001	5974

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EXAMINER

TRAN, TUAN A

ART UNIT	PAPER NUMBER
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2618

DATE MAILED: 06/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/723,442

Applicant(s)

LIN ET AL.

Examiner

Tuan A. Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 4-13 and 15-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 4-13 and 15-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1, 4-8, 10-13 and 15-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liebenow (6,522,640) in view of Brandt (4,727,535).

Regarding claims 1, 4-5, 7-8 and 20-21, Liebenow discloses a modem comprising: a base unit 78 (See fig. 4) for coupling to a telephone line, wherein the base unit includes a transmitter 46 for analog modulation of an analog voiceband data signal received over the telephone line and transmitting the modulated signal over a wireless medium (See fig. 2 and col. 5 lines 1-52, col. 7 lines 12-24); a remote unit 74 (See fig. 3) for communicating with the base unit 78 over the wireless medium, wherein the remote unit 74 includes: a RF transceiver 32 for wirelessly communicating with the base unit 78 by receiving the modulated signal over the wireless medium and analog demodulation of the analog voiceband signal, receiving an original voiceband data signal from a computer 64 via wired link, generating a RF modulated signal based on the original signal from the computer, and transmitting the RF modulated signal to the base unit 78 (See fig. 2 and col. 4 lines 33-67); an interface to a modem circuit 21 for decoding a data stream encoded in the analog voiceband signal, wherein the modem

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circuit 21 includes an echo canceller 24, 26 for reducing echoes on the demodulated analog voiceband data signal and a CODEC 26 for decoding the analog voiceband data signal (See col. 3 line 62 to col. 4 line 3). However, Liebenow does not mention that the base unit includes: a hybrid circuit for passing analog voiceband data signals between the telephone line and the transceiver; and a gain control circuit for controlling a level of the analog voiceband data signals passing from the hybrid circuit to the transmitter to be substantially in a linear range of the transmitter using a DC current of a telephone loop. Brandt teaches a coupling device acting as a telephone line interface (See fig. 1) comprising a hybrid circuit 28 for passing analog voiceband data signals between the telephone line and a coupled device; and a gain control circuit 92, 94 for controlling a level of the analog voiceband data signals passing from the hybrid circuit 28 to the coupled device to be substantially in a linear range using a DC current of a telephone loop (See figs. 1-2 and col. 3 lines 50-55, col. 5 lines 36-41). Since Brandt does suggest that the coupling device can be coupled to a modem (See col. 3 lines 22-25) and Liebenow does disclose the base unit 78 of the modem comprising a coupling device 42 which is a telephone line interface (See fig. 2 and col. 4 lines 5-6); therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the teachings of Brandt in modifying the coupling device 42 as disclosed by Liebenow for the advantage of maintaining circuit isolation and automatic gain control.

Claim 16 is rejected for the same reasons set forth in claims 1, 4-5, 7-8 and 20-21.

Claim 17 is rejected for the same reasons as set forth in claims 1, 4-5, 7-8 and 20-21, as method.

Regarding claim 6, Liebenow & Brandt discloses as cited in claim 1. However, they do not mention that the data signal is transmitted using FSK modulation. Since FSK modulation is well known in the art; therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use FSK modulation for modulating the data signals for the advantage of expanding the capability of the system to various modulation schemes.

Regarding claims 10-13 and 15, Liebenow & Brandt disclose as cited in claim 7. Liebenow further discloses the remote unit 74 can operate in wireless mode and wired mode (See fig. 2 and col. 6 lines 42-54). The remote unit 74, therefore, should be included a switch for automatically selecting the mode for transmitting/receiving the data signals in response to presence or absence of a wired and/or wireless connections in order to operate the remote unit in the proper mode.

Regarding claim 18, Liebenow & Brandt disclose as cited in claim 17. Liebenow further discloses the base unit 78 passes the voiceband signals between the telephone line and the remote unit 21, 32 without performing echo cancellation on the voiceband signals (See col. 5 lines 1-21).

Regarding claim 19, Liebenow & Brandt disclose as cited in claim 17. Brandt further discloses the base unit introduces at least some echoes into analog voiceband data signals sent to the remote unit (See col. 5 lines 49-60).

2. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Liebenow (6,522,640) in view of Brandt (4,727,535) as applied to claim 1 above, and further in view of Henderson (6,611,681).

Regarding claim 9, Liebenow & Brandt disclose as cited in claim 1. However, they do not mention that the remote unit includes a ringer emulator coupled to the receiver for receiving a ring indication signal wherein a ring signal is detected in the base unit and transmitted as the ring indication signal over the wireless medium to the remote unit. Henderson teaches a cordless telephone system wherein the cordless handset includes a ringer emulator for receiving a ring indication signal wherein a ring signal is detected in the base unit and transmitted as the ring indication signal over the wireless medium to the handset (See fig. 2 and Abstract). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the Henderson's teaching in modifying the system as disclosed by Liebenow & Brandt for the advantage of notifying users about the incoming call in order to establish the communication.

Response to Arguments

Applicant's arguments filed 05/05/2006 have been fully considered but they are not persuasive.

The Applicant argued that Liebenow does not disclose and would not have made obvious "a transmitter for analog modulation of an analog voiceband data signal" as recited in claim 1 (See Remark, page 6). The Examiner respectfully disagrees with the

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Applicant's argument because Liebenow clearly disclose a transmitter 50 of the transceiver 46 for analog modulation of an analog voiceband data signal received over a telephone line (See fig. 2). Further the claim (claim 1) itself is not narrow enough to prevent the analog voiceband data signal received over the telephone line from being processed such as embedding with error-correction data before being analog modulated for transmission. For that reasons, the Examiner remains Liebenow as a prior art for the rejections.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan A. Tran whose telephone number is (571) 272-7858. The examiner can normally be reached on Mon-Fri, 10:00AM-6:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Anderson can be reached on (571) 272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Tuan Tran



Matthew D. Anderson
SPE - 2618